

rejections have been overcome, and respectfully requests reconsideration of the outstanding Office Action and allowance of the present application.

*Support for Amendment to the Claims*

Applicant notes that the claims have been amended to recite that the covering layer is a solid cylindrical mass having a smooth outer surface. Applicant notes that this feature is not literally recited in the instant specification. However, this feature is clearly and inherently disclosed in the instant figures, i.e., it is clear from Fig. 1 that the covering layer 3 is each of solid, cylindrical, and that it has mass. Moreover, paragraphs [0012] and [0055]-[0057] provide clear support for a covering layer with a smooth outer surface. Accordingly, Applicant submits that this amendment is fully supported by the disclosure and introduces no new matter.

Applicant reminds the Examiner that “the failure of the specification to specifically mention a limitation that later appears in the claims is not a fatal one when one skilled in the art would recognize upon reading the specification that the new language reflects what the specification shows has been invented.” See *All Dental Prodx, LLC v. Advantage Dental Products, Inc.*, 02-1107 (Fed. Cir. 2002) noting *Eiselstein v. Frank*, 52 F.3d 1035, 1039, 34 USPQ2d 1467, 1470 (Fed. Cir. 1995). A copy of the *All Dental Prodx* case is attached hereto for the convenience of the Examiner.

*Present Amendment is proper for entry*

Applicant submits that the instant amendment is proper for entry after final rejection. In particular, Applicant notes that no question of new matter nor are any new issues raised in entering the instant amendment of claims 1 and 47 and that no new search would be required.

Moreover, Applicant submits that the instant amendment places the application in condition for allowance, or at least in better form for appeal.

Accordingly, Applicant requests that the Examiner enter the instant amendment, consider the merits of the same, and indicate the allowability of the present application and each of the pending claims.

*Restriction Requirement*

Claims 24-46 and 48-51 were again withdrawn by the Examiner as directed to the non-elected invention. Moreover, the Examiner has maintained the restriction requirement as final.

Applicant continues to disagree with the restriction requirement and the Examiner's assertion that there is no disclosure with regard to inserting the core into the cover. Applicant notes that paragraph [0024] clearly indicates that "the covering layer can be applied to the roll core in any number of ways, e.g., being pushed onto it." Moreover,

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independent claim 1 recites that the covering layer “is disposed on” the roll core while independent claim 24 recites that the covering layer “is applied on” the roll core. Neither claim precludes inserting the roll core into the covering layer because regardless of how one attaches the covering layer and roll core, the covering ends up being disposed thereon and because the term “applying” is clearly broad enough to include “inserting the role core into the sleeve”, especially when the specification indicates that “the covering layer can be applied to the roll core in any number of ways, e.g., being pushed onto it.”

Therefore, at this time Applicant is not canceling the non-elected claims pending allowance of the elected claims.

***Traversal of Rejection Under 35 U.S.C. § 102(b)***

Applicant traverses the rejection of claims 1-8, 12, 13, 16-18, 20, 21 and 47 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 2,534,818 to HOLROYD et al.

The Examiner asserted that this document discloses all the features recited in these claims including the thermoplastic and thermosetting plastic. Applicant respectfully traverses this rejection.

Applicant submits that HOLROYD fails to disclose the invention as defined by at least independent claims 1 and 47 as amended. Notwithstanding the Office Action assertions as to what HOLROYD discloses, Applicant submits that HOLROYD fails to disclose, inter

alia, a roll having a covering layer comprising at least one thermosetting plastic and at least one thermoplastic, wherein the covering layer is a solid cylindrical mass having a smooth outer surface, as recited in amended claims 1 and 47.

Applicant notes that the roll cover of HOLROYD is designed to be “porous” with only the fabric yarns being coated with the resin. See text between col. 1, line 54 and col. 2, line 2. Indeed, the text of col. 5, lines 6-18 of HOLROYD clearly indicates that the fabric covering layer is made to be pervious to steam and moisture, and that “[t]he resinous treatment ... does not fill up the interstices of the fabric.” In contrast, the present invention is clearly directed to a roll covering layer that has a smooth outer surface and that is in the form of a solid cylindrical mass.

As the Examiner must recognize, HOLROYD is directed to a covering layer that is disclosed as being porous and/or pervious to moisture. This document clearly discloses that the roll cover has nonfilled interstices. Clearly, it cannot be said that this document discloses a roll cover that is a solid cylindrical mass, much less, one that has a smooth outer surface, as recited in amended claims 1 and 47.

*Intended use*  
Applicant notes that HOLROYD is directed to an ironer roll and not to a roll for smoothing a web. By way of background, Applicant notes that such ironer rolls generally have a diameter of about one foot and a length of about ten feet. On the other hand, rolls for smoothing a web of the type of Applicant’s invention typically have diameters of up to five

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feet and lengths of up to about 40 feet.

Again, by way of background, it is noteworthy that rolls of the type disclosed in HOLROYD are manufactured in an entirely different way than the rolls of the type disclosed in the instant specification (see e.g., paragraph [0011]). For example, HOLROYD explains that the roll is made by first treating a fabric with resin in a treating bath. The fabric is then passed through two squeeze rolls 20 after which the wet fabric passes through a tender-drier casing 21. The fabric leaves the casing 21 in a substantially dry and laterally stretched condition (see col. 4, lines 57-61). After the casing 21, the fabric passes between calender rolls 22 and finally passes through a curing chamber 23 where the thermosetting resin becomes cured in the presence of a catalyst. Only after passing the curing chamber 23 is the fabric placed onto a roll core.

Thus, Applicant submits that the above-noted claims are not disclosed, or even suggested, by any proper reading of HOLROYD.

Applicant further notes that, for an anticipation rejection under 35 U.S.C. § 102(b) to be proper, each element of the claim in question must be disclosed in a single document, and if the document relied upon does not do so, then the rejection must be withdrawn.

Because HOLROYD fails to disclose at least the above mentioned features as recited in independent claims 1 and 47, Applicant submits that HOLROYD does not disclose all the claimed features recited in at least independent claims 1 and 47.

Furthermore, Applicant submits that dependent claims 2-8, 12, 13, 16-18, 20 and 21 are allowable at least for the reason that these claims depend from allowable base claims and because these claims recite additional features that further define the present invention. In particular, Applicant submits that no proper reading of HOLROYD discloses or suggests, in combination: that the web is a paper web as recited in claim 2; that the roll core comprises a hard metal roll core as recited in claim 3; that the covering layer comprises a matrix material and wherein one of fillers and fibers are embedded in the matrix material as recited in claim 4; that the amount thermosetting plastic is, one of greater than and proportionally greater than, the amount of thermoplastic as recited in claim 5; that the proportion of thermosetting plastic is one of between approximately 50% and 80% as recited in claim 6; that the proportion is between approximately 60% and 75% as recited in claim 7; that the proportion is approximately 70% as recited in claim 8; that the covering layer comprises a mixture of the at least one thermosetting plastic and the at least one thermoplastic and wherein an amount of the thermosetting plastic relative to the amount of thermoplastic in the covering layer comprises a mixture ratio which is essentially constant over an axial length of the covering layer as recited in claim 12; that the covering layer comprises a mixture of the at least one thermosetting plastic and the at least one thermoplastic and wherein an amount of the thermosetting plastic relative to the amount of thermoplastic in the mixture comprises a mixture ratio which is essentially constant over a radial thickness of the covering

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layer as recited in claim 13; that the covering layer includes one of fillers and fibers as recited in claim 16; that the covering layer comprises a matrix material and wherein the fillers or fibers are disposed in the matrix material of the covering layer as recited in claim 17; that the covering layer includes fibers arranged in the form of one or more fiber layers as recited in claim 18; that the covering layer includes fibers and fillers as recited in claim 20; and that the fibers and fillers are encapsulated by the covering layer made of matrix material as recited in claim 21.

Applicant requests that the Examiner reconsider and withdraw the rejection of the above-noted claims under 35 U.S.C. § 102(b).

*Traversal of Rejection Under 35 U.S.C. § 103(a)*

Applicant respectfully traverses the rejection of claims 9-11, 14, 15, 19 and 22 under 35 U.S.C. § 103(a) as unpatentable over HOLROYD alone.

The Examiner asserted that HOLROYD fairly discloses all of the claimed features recited in these claims except for using at least two different thermoplastics and at least two different thermosetting plastics. However, the Examiner opined that such was an obvious matter of design choice. Applicant respectfully traverses this rejection.

Notwithstanding the Office Action assertions as to what this document discloses or suggests, Applicant submits that no proper reading of or modification of this document

discloses or suggests, inter alia, a roll having a covering layer comprising at least one thermosetting plastic and at least one thermoplastic, wherein *the covering layer is a solid cylindrical mass having a smooth outer surface*, as recited in amended claim 1.

As discussed above, the roll cover of HOLROYD is designed to be “porous” with only the fabric yarns being coated with the resin. See text between col. 1, line 54 and col. 2, line 2. Indeed, the text of col. 5, lines 6-18 of HOLROYD clearly indicates that the fabric covering layer is made to be pervious to steam and moisture, and that “[t]he resinous treatment ... does not fill up the interstices of the fabric.” In contrast, the present invention is clearly directed to a roll covering layer that has a smooth outer surface and that is in the form of a solid cylindrical mass.

Again, HOLROYD is merely directed to a covering layer that is disclosed as being porous and/or pervious to moisture. This document further discloses a roll cover with nonfilled interstices. Accordingly, it simply cannot be said that this document discloses or suggests a covering layer that is a solid cylindrical mass, much less, one that has a smooth outer surface, as recited in amended claim 1.

Thus, Applicant submits that the above-noted document fails to disclose or suggest the features recited in at least independent claim 1. Because no proper modification of HOLROYD discloses or suggests at least the above-noted features of the instant invention, Applicant submits that HOLROYD fails to render unpatentable the combination of features



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recited in at least independent claim 1.

Furthermore, Applicant submits that there is no motivation or rationale disclosed or suggested in the art to modify HOLROYD in the manner asserted by the Examiner. Nor does the Examiner's opinion provide a proper basis for these features or for the motivation to modify this document, in the manner suggested by the Examiner. Therefore, Applicant submits that the invention as recited in at least independent claim 1 is not rendered obvious by any reasonable inspection of these disclosures.

Applicant directs the Examiner's attention to the guidelines identified in M.P.E.P. section 2141 which state that "[i]n determining the propriety of the Patent Office case for obviousness in the first instance, it is necessary to ascertain whether or not the reference teachings would appear to be sufficient for one of ordinary skill in the relevant art having the reference before him to make the proposed substitution, combination, or other modification." *In re Linter*, 458 F.2d 1013, 1016, 173 USPQ 560, 562 (CCPA 1972).

As this section clearly indicates, "[o]bviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992)."

Moreover, it has been legally established that “[t]he mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990) .... Although a prior art device "may be capable of being modified to run the way the apparatus is claimed, there must be a suggestion or motivation in the reference to do so." 916 F.2d at 682, 16 USPQ2d at 1432.). See also *In re Fritch*, 972 F.2d 1260, 23 USPQ2d 1780 (Fed. Cir. 1992) (flexible landscape edging device which is conformable to a ground surface of varying slope not suggested by combination of prior art references).

Additionally, it has been held that “[a] statement that modifications of the prior art to meet the claimed invention would have been "" well within the ordinary skill of the art at the time the claimed invention was made"" because the references relied upon teach that all aspects of the claimed invention were individually known in the art is not sufficient to establish a prima facie case of obviousness without some objective reason to combine the teachings of the references. *Ex parte Levengood*, 28 USPQ2d 1300 (Bd. Pat. App. & Inter. 1993).”

Furthermore, Applicant submits that dependent claims 9-11, 14, 15, 19 and 22 are allowable at least for the reason that these claims depend from allowable base claims and because these claims recite additional features that further define the present invention. In particular, Applicant submits that no proper reading of HOLROYD discloses or suggests, in

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combination: that the covering layer includes at least two different thermosetting plastics as recited in claim 9; that the covering layer includes at least two different thermoplastics as recited in claim 10; that the covering layer includes at least two different thermoplastics as recited in claim 11; that the covering layer comprises a mixture of the at least one thermosetting plastic and the at least one thermoplastic and wherein an amount of the thermosetting plastic relative to the amount of thermoplastic in the mixture comprises a mixture ratio which varies over a radial thickness of the covering layer as recited in claim 14; that the amount or proportion of thermoplastic relative to the amount of the thermosetting plastic increases radially outwardly in the covering layer as recited in claim 15; that the covering layer includes one of glass, carbon, and aramide fibers as recited in claim 19; and that the covering layer includes powdered fillers as recited in claim 22.

Accordingly, Applicant requests that the Examiner reconsider and withdraw the above-noted rejection under 35 U.S.C. § 103(a) and indicate that these claims are allowable over the applied art of record.

*Traversal of the Examiner's comments*

With regard to the Examiner's assertion that Applicant's previously filed arguments fail to comply with 37 CFR 1.111(b), Applicant notes that the Amendment filed under rule 1.111 speaks for itself and the Examiner couldn't be more wrong. In the Amendment,

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Applicant had clearly set forth the specific claim language which was apparently lacking in the cited documents. Applicant is at a loss to understand how the Examiner can characterize as “a general allegation” the citing of specific language which is entirely lacking in the applied document. As the Examiner well knows, it is the Examiner and not Applicant who has the initial burden of establishing a *prima facie* case of anticipation and obviousness.

### CONCLUSION

Applicant respectfully submits that each and every pending claim of the present invention meets the requirements for patentability under 35 U.S.C. § § 112, 102 and 103 and respectfully requests the Examiner to indicate allowance of each and every pending claim of the present invention.

In view of the foregoing, it is submitted that none of the references of record, either taken alone or in any proper combination thereof, anticipate or render obvious the Applicant's invention, as recited in each of claims 1-22 and 47. The applied references of record have been discussed and distinguished, while significant claimed features of the present invention have been pointed out.

Further, any amendments to the claims which have been made in this response and which have not been specifically noted to overcome a rejection based upon the prior art, should be considered to have been made for a purpose unrelated to patentability, and no

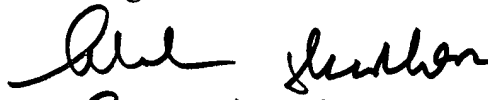
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estoppel should be deemed to attach thereto.

The Commissioner is hereby authorized to charge any fees necessary for consideration of this amendment to deposit account No. 19-0089.

Should there be any questions, the Examiner is invited to contact the undersigned attorney at the number listed below.

Respectfully submitted,  
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Attachments: Appendix 1  
Copy of the *All Dental Prodx* case.

APPENDIX 1

*Changes to claims 1 and 47 as follows:*

1. (Twice Amended) A roll for smoothing a web comprising:  
a roll core having an outer surface;  
a covering layer disposed on the outer surface of the roll core, the covering layer having an inner surface and an outer surface;  
the covering layer comprising at least one thermosetting plastic and at least one thermoplastic,  
wherein the at least one thermoplastic has a melting temperature which is below a glass transition temperature of the at least one thermosetting plastic, and  
wherein the covering layer is a solid cylindrical mass having a smooth outer surface.

Not prima facie obvious

47. (Amended) A roll for smoothing a web comprising:  
a roll core having an outer surface;  
a covering layer disposed on the outer surface of the roll core, the covering layer having an inner surface and an outer surface;  
the covering layer comprising an elastic matrix material;  
the elastic matrix material comprising a mixture of at least one thermosetting plastic and at least one thermoplastic; and  
the covering layer including one of fibers and fillers,  
wherein the at least one thermoplastic has a melting temperature which is below a glass transition temperature of the at least one thermosetting plastic, and  
wherein the covering layer is a solid cylindrical mass having a smooth outer surface.

United States Court of Appeals for the Federal Circuit

02-1107

ALL DENTAL PRODX, LLC and  
DMG DENTAL-MATERIAL GESELLSCHAFT MBH,

Plaintiffs-Appellees,

v.

ADVANTAGE DENTAL PRODUCTS, INC.,

Defendant-Appellant.

Jeffrey M. Butler, Kenyon & Kenyon, of New York, New York, argued for plaintiffs-appellees. With him on the brief were Richard L. Mayer, and Jeffrey S. Ginsberg.

Douglas W. Sprinkle, Gifford, Krass, Groh, Sprinkle, Anderson & Citkowski, P.C., of Birmingham, Michigan, argued for defendant-appellant.

Appealed from: United States District Court for the Eastern District of New York

Senior Judge Jacob Mishler

## United States Court of Appeals for the Federal Circuit

02-1107

ALL DENTAL PRODX, LLC and DMG DENTAL-MATERIAL GESELLSCHAFT MBH,

Plaintiffs-Appellees,

v.

ADVANTAGE DENTAL PRODUCTS, INC,

Defendant-Appellant.

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DECIDED: October 25, 2002

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Before NEWMAN, Circuit Judge, FRIEDMAN, Senior Circuit Judge, and LOURIE, Circuit Judge.

LOURIE, Circuit Judge.

Advantage Dental Products, Inc. appeals from the decision of the United States District Court for the Eastern District of New York granting the declaratory judgment plaintiffs All Dental Prodx, LLC and DMG Dental-Material Gesellschaft mbH (collectively, "All Dental") summary judgment that Advantage Dental's U.S. Patent 5,213,498 is invalid and not infringed by All Dental. All Dental Prodx, LLC v. Advantage Dental Prods., Inc., CV-00-2393,-5785 (E.D.N.Y. Aug. 7, 2001). Because the '498 patent has not been shown to be invalid, we reverse that portion of the judgment. Because there are no genuine issues of material fact that All Dental does not infringe the patent, we affirm that portion of the judgment. Accordingly, we affirm-in-part and reverse-in-part.



## BACKGROUND

Advantage owns the '498 patent, which is directed to a method for making a custom dental impression tray. Dentists typically form an impression of a patient's tooth or teeth as part of the process for constructing a crown, cap, or other dental appliance. '498 patent, col. 1, ll. 14-16. The '498 patent describes the prior art impression process as utilizing a suitably sized tray filled with alginate and then placing the tray over the tooth or teeth of which an impression is desired; as the alginate sets, it forms an impression of the area of interest. Id. at ll. 19-26. The invention of the '498 patent improves this process by utilizing less expensive materials and reducing the patient's "chair time." Id. at ll. 31-49. The '498 patent discloses that polycaprolactone, after being heated to the point of pliability (approximately 140°F), can be comfortably molded directly over a person's teeth, without the need for a tray or container. Id. at col. 2, ll. 36-43. After cooling to body temperature, the polycaprolactone mold is rigid, thus forming an impression. Id.

The patent contains two claims, both of which are independent method claims reciting, inter alia, the following step:

- (1) heating an original unidentified mass of thermosetting<sup>\*</sup> material to a predetermined temperature range at which the thermosetting material becomes pliable, . . .

Id. at col. 4, ll. 46-49, 58-61 (emphasis added). The specification does not define the phrase “original unidentified mass,” which was introduced into the claims during prosecution. In the first Office Action, the claims were rejected as unpatentable under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent 4,227,877, issued to Tureaud et al., which discloses an acrylic thermoplastic material shaped anatomically in the form of a dental impression tray that can be directly molded within a person’s mouth. In response to the rejection, the applicant remarked that Tureaud “does not teach or disclose providing the thermosetting material in an original unidentified mass.” Not persuaded, the Examiner again rejected the claims on the same ground, explaining that the “claims do not recite the material in an ‘original unidentified mass’, rather, they simply recite a material.” The applicant later amended the claims to recite that phrase. The Examiner then withdrew the rejection based on Tureaud and rejected the claims as being anticipated by U.S. Patent 4,413,979, issued to Ginsburg et al., which discloses a sheet of moldable thermoplastic material having two ridges to facilitate folding of the sheet into a U-shape to encompass a quadrant of a person’s teeth. The applicant traversed the Ginsburg rejection, explaining that the claimed invention “teaches away from applying the thermosetting material in any specific form, such as the preformed sheets disclosed by Ginsburg.” The Examiner then allowed the claims and the patent thereafter issued.

All Dental sells a TEMP TABS TRUE BLUE product, which is a flat, oval-shaped polycaprolactone tablet. The tablet is heated until pliable and then molded over a person’s tooth where it cools and hardens, thereby making a dental impression. All Dental brought suit seeking a declaratory judgment that the ‘498 patent was invalid and not infringed by its tablet. The court construed the phrase “original unidentified mass” to mean “a mass that does not have specific preformed size and shape.” All Dental Prodx, slip op. at 11. The court granted All Dental summary judgment of noninfringement apparently because the All Dental tablets have a specific preformed shape and size. Id. The court also held both claims of the patent invalid under § 112, ¶¶ 1 and 2. Id. Finding no definition of the phrase “original unidentified mass” in either the patent specification or the prosecution history, the court concluded that “a person skilled in the art would not be able to understand the bounds of the claims.” Id. The

court also concluded that the patent “lacks a written description of the invention.” Id.

Advantage Dental appeals from the district court’s grant of summary judgment. We have jurisdiction under 28 U.S.C. § 1295(a)(1).

#### DISCUSSION

We review a district court’s grant of summary judgment de novo, reapplying the same standard used by the district court. Ethicon Endo-Surgery, Inc. v. United States Surgical Corp., 149 F.3d 1309, 1315, 47 USPQ2d 1272, 1275 (Fed. Cir. 1998). Summary judgment is appropriate “if the pleadings, depositions, answers to interrogatories, and admissions on file, together with the affidavits, if any, show that there is no genuine issue as to any material fact and that the moving party is entitled to a judgment as a matter of law.” Fed. R. Civ. P. 56(c). “The evidence of the nonmovant is to be believed, and all justifiable inferences are to be drawn in his favor.” Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 255 (1986).

A determination of patent infringement requires a two-step analysis. “First, the court determines the scope and meaning of the patent claims asserted . . . [Second,] the properly construed claims are compared to the allegedly infringing device.” Cybor Corp. v. FAS Techs., Inc., 138 F.3d 1448, 1454, 46 USPQ2d 1169, 1172 (Fed. Cir. 1998) (en banc) (citations omitted). Step one, claim construction, is an issue of law, Markman v. Westview Instruments, Inc., 52 F.3d 967, 970-71, 34 USPQ2d 1321, 1322 (Fed. Cir. 1995) (en banc), aff’d, 517 U.S. 370 (1996), that we review de novo, Cybor, 138 F.3d at 1456, 46 USPQ2d at 1172. Step two, comparison of the claim to the accused device, requires a determination that every claim limitation or its equivalent be found in the accused device. Warner-Jenkinson Co. v. Hilton Davis Chem. Co., 520 U.S. 17, 29 (1997). Those determinations are questions of fact. Bai v. L & L Wings, Inc., 160 F.3d 1350, 1353, 48 USPQ2d 1674, 1676 (Fed. Cir. 1998).

The question whether the subject matter of a patent claim fails to meet the written description requirement of 35 U.S.C. § 112, ¶ 1 is a question of fact. Vas-Cath Inc. v. Mahurkar, 935 F.2d 1555, 1563, 19 USPQ2d 1111, 1116 (Fed. Cir. 1991). A determination that a patent claim is invalid for failure to meet the definiteness requirement of 35 U.S.C. § 112, ¶ 2 is “a legal conclusion that is drawn from the court’s performance of its duty as the

construer of patent claims[, and] therefore, like claim construction, is a question of law that we review de novo.” Atmel Corp. v. Info. Storage Devices, Inc., 198 F.3d 1374, 1378, 53 USPQ2d 1225, 1227 (Fed. Cir. 1999) (citing Personalized Media Communications, LLC v. Int’l Trade Comm’n, 161 F.3d 696, 705, 48 USPQ2d 1880, 1888 (Fed. Cir. 1998)).

Advantage argues that the district court improperly concluded that the ’498 patent fails to satisfy both paragraphs of 35 U.S.C. § 112, without providing reasoning for those conclusions. As to the adequacy of the written description, Advantage contends that, while the phrase “original unidentified mass” does not literally appear in the specification, one skilled in the art would recognize and know how to practice the claimed invention using “an original unidentified mass” upon reading the specification. As to definiteness, Advantage contends that, while the meaning of the phrase “original unidentified mass” is neither facially apparent nor defined in the patent specification, the prosecution history clarifies the phrase to mean any shape different from a complete impression tray. On the issue of infringement, Advantage argues, based upon its proposed construction of the phrase “original unidentified mass,” that All Dental infringes the patent because its tablets are clearly not in the form of a dental impression tray.

All Dental responds that the “original unidentified mass” language does not appear anywhere in the originally filed patent application, and that it was new matter added during prosecution, arguably in violation of the statute. While acknowledging that the specification need not provide in haec verba support for the language added to the claim, All Dental argues that the originally filed disclosure did not allow one skilled in the art to immediately discern that an “original unidentified mass” limitation was part of the definition of the invention. All Dental also contends that the applicant did not properly act as his own lexicographer in defining the meaning of the phrase “original unidentified mass,” as he failed to clearly define the phrase. All Dental further contends that if the phrase “original unidentified mass” is to have any meaning at all, then it must be that the material lacks a specific preformed shape and size, as the district court concluded. All Dental asserts that its accused tablets do not infringe the ’498 patent because they clearly have a preformed shape, viz., a generally flat, oblong shape.

We agree with Advantage that there are no genuine issues of material fact concerning whether its patent claims comply with the written description requirement of section 112, first paragraph. While the contested language is not a model of clarity, it is also fairly simple and intelligible, capable of being understood in the context of the patent specification. It is thus reasonably clear what the invention is and that the patent specification conveys that meaning.

Section 112, first paragraph, states, *inter alia*: "The specification shall contain a written description of the invention." 35 U.S.C. § 112, ¶ 1 (2000). In order to comply with the written description requirement, the specification "need not describe the claimed subject matter in exactly the same terms as used in the claims; it must simply indicate to persons skilled in the art that as of the [filing] date the applicant had invented what is now claimed." Eiselstein v. Frank, 52 F.3d 1035, 1038, 34 USPQ2d 1467, 1470 (Fed. Cir. 1995) (citing Vas-Cath, 935 F.2d at 1562, 19 USPQ2d at 1115, and In re Wertheim, 541 F.2d 257, 265, 191 USPQ 90, 98 (CCPA 1976)).

The application for the '498 patent as originally filed did not contain the phrase "original unidentified mass"; indeed, there is no mention of the starting material's shape or form anywhere in the patent specification. However, the failure of the specification to specifically mention a limitation that later appears in the claims is not a fatal one when one skilled in the art would recognize upon reading the specification that the new language reflects what the specification shows has been invented. See Eiselstein, 52 F.3d at 1039, 34 USPQ2d at 1470. Here, the invention involves heating a mass of thermoplastic material that lacks an identifiable form. That invention is described in the specification, albeit not *in haec verba*. It is also clear what the invention is not. It does not involve heating a thermoplastic mass having an identifiable form or shape. We therefore conclude that there are no genuine issues of material fact that the specification describes the claimed invention within the meaning of the statute. Thus, summary judgment of invalidity for failure to satisfy the written description requirement was erroneous and is therefore reversed.

We also agree with Advantage that its claims comply with the definiteness requirement of section 112, second paragraph. That section states: "The specification shall conclude with

one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.” The primary purpose of the definiteness requirement is to ensure that the claims are written in such a way that they give notice to the public of the extent of the legal protection afforded by the patent, so that interested members of the public, e.g., competitors of the patent owner, can determine whether or not they infringe. Warner-Jenkinson, 520 U.S. at 28-29. That determination requires a construction of the claims according to the familiar canons of claim construction. Only after a thorough attempt to understand the meaning of a claim has failed to resolve material ambiguities can one conclude that the claim is invalid for indefiniteness. Foremost among the tools of claim construction is of course the claim language itself, but other portions of the intrinsic evidence are clearly relevant, including the patent specification and prosecution history. See Standard Oil Co. v. Am. Cyanamid Co., 774 F.2d 448, 452, 227 USPQ 293, 296 (Fed. Cir. 1985) (“The specification is, thus, the primary basis for construing the claims. . . . [T]he prosecution history (or file wrapper) limits the interpretation of claims so as to exclude any interpretation that may have been disclaimed or disavowed during prosecution in order to obtain claim allowance.”). The prosecution history can thus be relied upon to clarify the claim meaning and hence provide definiteness. Tex. Instruments Inc. v. Int’l Trade Comm’n, 871 F.2d 1054, 1063, 10 USPQ2d 1257, 1263-64 (Fed. Cir. 1989) (“The public is entitled to know the scope of the claims but must look to both the patent specification and the prosecution history, especially when there is doubt concerning the scope of the claims.” (citing McGill Inc. v. John Zink Co., 736 F.2d 666, 221 USPQ 944 (Fed. Cir. 1984))).

In this case, the prosecution history aids in clarifying the meaning of the claim phrase “original unidentified mass.” The patent applicant twice distinguished his invention over the prior art on the basis of that limitation. First, the applicant distinguished his invention over Tureaud’s anatomically formed tray shape as not being an “original unidentified mass.” Secondly, the applicant distinguished his invention over Ginsburg’s preformed sheets of thermoplastic material as “teach[ing] away from applying the thermosetting material in any specific form.” Each of those statements made during prosecution disclaims a specific shape.

Moreover, the second statement amounts to a characterization of the "original unidentified mass" limitation as not embracing "any specific form." Advantage's argument that the phrase "original unidentified mass" means any shape other than a complete dental tray gives effect to only the first prosecution statement while ignoring the second. Giving proper effect to both statements and the specification's clear indication of the nature of the invention, we conclude that the phrase means exactly what the district court said it means: "a mass that does not have a specific preformed size and shape." All Dental Prodx, slip op. at 11. Where we differ from the district court is on whether the phrase as so construed is indefinite. The meaning of the phrase "original unidentified mass," arrived at after reviewing the specification and consulting the prosecution history, is indeed definite and clear. Thus, the district court construed the phrase correctly, yet erred in concluding that the phrase was indefinite.

Finally, we agree with All Dental that it is entitled to summary judgment of noninfringement. Our conclusion follows from the construction of the phrase "original unidentified mass." All Dental's tablets clearly have a preformed shape; it is uncontested that they are flat, oblong-shaped tablets. Advantage's infringement assertions therefore fail to raise any genuine issues of material fact, and the court's grant of summary judgment of noninfringement is affirmed.

#### CONCLUSION

The district court erred in granting summary judgment that the '498 patent claims fail to satisfy the requirements of 35 U.S.C. § 112, and we reverse that decision. However, the court correctly granted summary judgment that Advantage's accused product does not infringe the patent, and we affirm that decision. Accordingly, we

AFFIRM-IN-PART and REVERSE-IN-PART.

#### COSTS

Costs to All Dental.

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\* At oral argument, counsel for Advantage conceded that the term “thermosetting” should have been “thermoplastic” in order to correctly describe a material that becomes pliable on heating. We will therefore use the term “thermoplastic” further in this opinion.